REMARKS

Claims 1-39 and 47-55 are presently pending in the application. Claims 1 and 34 have been amended to further clarify that which was previously claimed. Applicant respectfully requests issuance of a notice of allowance for this application in view of the amendments to the claims and the following remarks.

The 35 U.S.C. §102(b) rejections

Claims 1-6, 19-22, 25-37, 47-52, 54, and 55 stand rejected pursuant to 35 U.S.C. §102(b) as being anticipated by Lai, J.S. and Peng, F.Z., "Multilevel Converters – A New Breed of Power Converters", IEEE Transactions on Industry Applications, pp. 509-517, Vol. 32, No. 3, May/June 1996 (hereafter referred to as "Lai"). Applicant respectfully traverses these rejections because each and every limitation provided in Claims 1-6, 19-22, 25-37, 47-52, 54, and 55 are not described by Lai.

Claims 1-6

Claim 1 has been amended to describe first and second boost converters that are configured to receive an input voltage and supply a boost voltage that is greater in magnitude than a peak magnitude of the input voltage. Claim 1 also describes a power factor correction controller coupled with the first and second boost converters that is configured to control the first and second boost converters with pulse width modulation and interleave as a function of the boost voltage. Lai, on the other hand, describes a system in which the maximum magnitude of a voltage output (V_{a0}) is equal to a peak magnitude of the input voltage (Vdc) (p. 509 last paragraph and Figure 2 of Lai). Lai also fails to describe a power factor correction controller configured to control boost converters with pulse width modulation and interleave as a function of a boost voltage as also described in Claim 1.

For at least the foregoing reasons, each and every limitation described in Claim 1 and the Claims dependent therefrom are not described by Lai. Thus, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejections of Claims 1-6.

Claims 19-22 and 25-27

Claim 19 describes a power factor correcting power supply that includes an output stage power converter coupled with a first boost converter and a second boost converter, where the output stage power converter is configured to balance the boost voltage supplied with the first and second boost converters. In contrast, Lai does not describe or disclose an output stage (see Figure 1 of Lai), and even if Lai did describe an output stage, Lai clearly does not describe an output stage configured to balance a boost voltage as described in Claim 19. It is also to be noted that reference to the output stage limitation in Claim 19 and the basis for rejection thereof is omitted from the office action mailed February 27, 2006.

Claims 28- 33

The power factor correcting power supply of Claim 28 includes an output stage power converter coupled with an input stage power converter, where the output stage power converter includes a first output converter coupled with a first pair of boost switches and a second output converter coupled with a second pair of boost switches, where the output stage power converter is configured to substantially balance the portion of the boost voltage provided by each of the first and the second pair of boost switches. Lai, on the other hand, does not describe an output stage power converter (see Figure 1 of Lai). Even if Lai did describe an output stage power converter, Lai does not describe an output stage power converter configured to substantially balance a portion of a boost voltage provided by each of a first and second pair of boost switches as also described in Claim 28. It is also to be noted that reference to the output stage power converter limitation in Claim 28 and the basis of the rejection thereof is omitted from the office action mailed February 27, 2006.

Claims 34-37

Amended Claim 34 describes a power factor correcting power supply that includes a power factor correction controller coupled with the first and second boost switches and the first

and second boost sub-switches, where the first and second boost switches and the first and second boost sub-switches are switchable with pulse width modulation to develop at least a portion of a DC boost voltage on the boost capacitor from an AC input voltage supplyable from the AC power source, wherein the DC boost voltage is greater in magnitude than a peak magnitude of the AC input voltage. Conversely, Lai does not describe a power factor correction controller coupled with first and second boost switches and first and second boost sub-switches that are switchable with pulse width modulation to develop at least a portion of a DC boost voltage on the boost capacitor from an AC input voltage suppliyable from an AC power source. Lai also does not describe a DC boost voltage that is greater in magnitude than a peak magnitude of the AC input voltage. To the contrary, Lai includes no discussion of boost switches and boost sub-switches that are switchable with pulse width modulation, and Lai's output voltage (Vdc) in not greater in magnitude than Lai's input voltage (V_{a0}). (see Figure 2 of Lai)

Claims 47-52, 54 and 55

The method of Claim 47 includes the steps of converting a first DC voltage to a second DC voltage with an output stage power converter, and supplying the second DC voltage to a power rail to supply a load. Lai, on the other hand fails to describe an output stage power convert (see Figure 1 of Lai). Even if Lai described a power converter, Lai very clearly does not describe an output stage power converter that converts a first DC voltage to a second DC voltage as described in Claim 47. It is also to be noted that reference to the step of converting a first DC voltage to a second DC voltage with the output stage power converter in Claim 47 and the basis of the rejection thereof is omitted from the office action mailed February 27, 2006.

For at least the foregoing reasons, each and every limitation described in independent Claims 1, 19, 28, 34 and 47, and the Claims dependent therefrom, are not described by Lai or any other cited prior art either alone, or in combination. Thus, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejections of Claims 1-6, 19-22, 25-37, 47-52, 54, and 55.

The 35 U.S.C. §103(a) rejections

Claims 7-18 and 23 stand rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Lai in view of U.S. Patent No. 5,923,152 to Guerrera (hereafter referred to as "Guerrera"). In addition, Claims 24, 38, 39, and 53 stand rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Lai in view of U.S. Patent No. 4,172,277 to Pinson (hereafter referred to as "Pinson"). Applicant respectfully traverses these rejections because each and every limitation provided in Claims 7-18, 23-24, 38-39 and 53 are not taught, suggested or disclosed by Lai, Guerrera, nor Pinson either alone, or in combination. Thus, a *prima facie* case of obviousness has not been established and/or cannot be maintained.

Claim 8 describes a power factor correcting power supply that includes a power factor correction controller coupled with at least four boost switches, the power factor correction controller is configured with feedforward control to direct the at least four boost switches as a function of a DC boost voltage. In contrast, neither Lai nor Guerrera teach, suggest or disclose a power factor correction controller configured to operate with interleave and feedforward control to direct at least four boost switches. To the contrary, Lai fails to teach, suggest or describe any kind of controller, and instead simply describes switching stages of switches without any indication of a controller, or the operation thereof. Not only does Guerrera fail to describe a feed forward control, but also, Guerrera describes controlling the on and off relationship of switches as a function of a frequency of an AC input signal (Claim 17 lines 16-19), which teaches away from a feedforward control to direct at least our boost switches as a function of a DC boost voltage as described in Claim 8. In addition, Guerrera teaches away from a power factor controller coupled with at least four boost switches as described in Claim 8, by describing that the Guerrera switches are each controlled by a separate controller (Col. 4 lines 41-44).

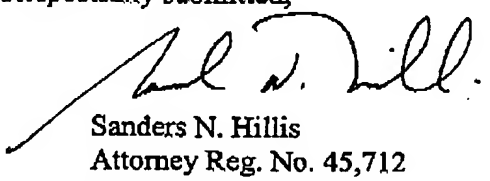
For at least the previously discussed reasons, each and every claim limitation described in Claim 8 and the claims dependent therefrom are not taught or suggested by the cited prior art either alone or in combination. Thus, a *prima facie* case of obviousness has not been established for Claims 8-18. In addition, claims 7, 23-24, 38-39 and 53 depend from independent Claims 1, 19, 34, and 47, respectively, and are therefore allowable for at least the same reasons the

respective independent Claims are allowable. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 7-18, 23-24, 38-39 and 53.

Conclusion

The application is believed to now be in condition for allowance, which is respectfully requested. Should the Examiner deem a telephone conference to be beneficial in expediting examination and/or allowance of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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